

Application No. 10/822040
Amendment dated November 17, 2005
Reply to Office Action of November 1, 2005

Docket No.: 013192.0101D1US

AMENDMENTS TO THE CLAIMS

1. (Original) A waist strengthening and rehabilitating apparatus, in which a support unit is constructed by assembling all or some of a footrest, a backrest, a pedestal, a handle and related frames, and waist exercises are conducted utilizing a backrest frame operated in conjunction with a load controller with the lower part of his body being fixed to the support unit, said apparatus further comprising:

a lower body mounted on said support unit, said lower body holder being comprised of a front thigh holder for tightly holding the front portion of the thigh and a rear thigh holder for tightly holding the rear portion of the thigh.

Claims 2 - 4 (Canceled)

5. (Original) The waist strengthening and rehabilitating apparatus according to claim 1 wherein said front thigh holder comprises:

a movable member in which a pressurizing holder is guided by two pairs of moving links supported by fixed frames;

a stopper preventing the moving link from being moved rearward and allowing the moving link to support the pressurizing bar; and

a pressurizer allowing said pressurizing holder to be pressurized by moving forward the moving link.

6. (Original) The waist strengthening and rehabilitating apparatus according to claim 5, further comprising a pressure meter operated according to pressure exerted from said pressuring holder, said pressure meter being mounted on a portion moved together with said pressuring holder so as to recognize the amount of the pressure.

Claims 7 - 9 (Canceled)

10. (Original) The waist strengthening and rehabilitating apparatus according to claim 1, further comprising a vertical rotating shaft, said vertical rotating shaft being situated under the support frame of said backrest to be operated in conjunction with said load controller, said

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vertical rotating shaft being aligned with the central line of the lumbar vertebrae so as to allow the waist to be twisted.

Claims 11 and 12 (Canceled)

13. (Original) A load controller, comprising:
a load applicator, in which a load lever is mounted to a portion moved together with a central shaft and the size of load can be adjusted by changing the position of weights;
a balance, in which an auxiliary load lever is situated to be opposite to the load lever and resisting force exerted from the outside to the central shaft is controlled by changing the position of weights;
a clutch that is disposed between a portion moved together with a central shaft and the load applying means to connect or disconnect the load applying means with or from the apparatus;
an attenuator that is mounted on the moved portion of the load applying means to attenuate return load generated by said load applying means while said load applying means is returned to its original position after performing movement; and
a sectional brake, in which a stop portion is formed on a portion moved together with the central shaft and a stopper is situated in the vicinity of the stop portion, thereby performing sectional braking;
wherein said load controller includes all or some of said load applicator, said balance unit, said clutch, said attenuator, and said sectional brake.

14. (New) The waist strengthening and rehabilitating apparatus according to claim 1 wherein said front thigh holder comprises:
a movable member in which a pressurizing holder is guided by two pairs of moving links supported by fixed frames;
a stopper preventing the moving link from being moved rearward and allowing the moving link to support the pressurizing bar; and
a pressurizer allowing said pressurizing holder to be pressurized by moving forward the moving link.

15. (New) The waist strengthening and rehabilitating apparatus according to claim 5, further comprising a pressure meter operated according to pressure exerted from said pressuring holder, said pressure meter being mounted on a portion moved together with said pressuring holder so as to recognize the amount of the pressure.

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16. (New) The waist strengthening and rehabilitating apparatus according to claim 1 wherein said front thigh holder comprises:

a movable member in which a pressurizing holder is guided by two pairs of moving links supported by fixed frames;

a stopper preventing the moving link from being moved rearward and allowing the moving link to support the pressurizing bar; and

a pressurizer allowing said pressurizing holder to be pressurized by moving forward the moving link.

17. (New) The waist strengthening and rehabilitating apparatus according to claim 1 wherein said lower body holder is constructed by all or some of said front thigh holder, said rear thigh holder, said front pelvis holder and said rear pelvis holder.